Index

Aeronautics Act Smry-1, 1-1, 2-1, 7-6	airport factors affecting 6-15
legislative history of ALUC statutes A-31	altitude
safety policies 9-7	as noise factor 6-14, 6-16, 6-18, 6-26
Air carrier airports	as safety factor 8-2, 9-37, 9-41, 9-54
compatibility planning for 3-33	flight tracks
Air Installation Compatible Use Zone (AICUZ)	sample plot of 6-13
program 3-37, 7-5, 9-7	significance on noise contours 6-28
as basis for safety zones 9-48	fire attack aircraft 6-16
as source of aircraft accident location data 8-8	helicopters 6-16
as source of noise contours 7-21	instrument flight procedures 6-10, 6-14, 6-15
Aircraft accident locations	visual flight rules traffic patterns 6-10, 6-12
air carrier aircraft 8-7, 8-8, 8-9, 8-11	single-sided, effect on accident locations 8-26
runway proximity 8-9	Aircraft noise characteristics 6-1
data availability 8-5	agricultural aircraft 7-20
distribution contours, general aviation 9-23	differences from other transportation noise 6-4
arrivals 9-26, 9-28, 9-30, 9-32	ground operations 6-17, 6-28, 7-20
departures 9-27, 9-29, 9-31, 9-33	noise footprints of various aircraft types 6-6
variations by runway length 9-24	helicopters 6-8, 6-9, 6-28, 7-20
patterns of, general aviation 8-15, F-1	jet airplanes 6-4
aircraft type variables 8-24	factors affecting noise levels 6-17
arrivals vs. departures 8-20	propeller airplanes 6-8
effects of runway length on 8-20	typical event 6-21
other variables 8-26	Airplanes
pilot control variables 8-25	performance limitations 8-2
three dimensional plot of 9-25	pilot actions in emergencies 8-3
proximity to nearest airport 8-6, 8-7	Airport influence areas
recent research 3-7, 8-1, 8-15	see: planning area boundaries
methodology E-1	Airport activity forecasts
theoretical locations 8-10	ALUC preparation of 2-6, 2-8
Aircraft accidents	ALUC review of 4-19
air carrier data 8-7, 8-9, 8-11, 8-13, 8-17, 8-19	as input to noise contour calculations 7-18
characteristics 8-1	documentation of in compatibility plan 2-13
collisions with objects 8-28, 8-29	Airport development and expansion plans
effects of collisions with buildings 8-30	ALUC review of Smry-14, 4-4, 4-8, 4-14, A-17
general aviation data 8-6, 8-12, 8-16, 8-18	nonaviation development on airport
injuries to non-occupants 8-29, 8-31	property 4-11
locations of	noise impacts of 7-38
see: aircraft accident locations	also see: airport master plans; airport layout plans
nature of impact 8-27	Airport layout plans
phase of operation 8-12, 8-13	as basis for compatibility plans Smry-5, 2-5
severity 8-27	documentation in compatibility plans 2-6, 2-13
swath length, general aviation 8-28	Airport land use commission members A-2, A-6
Aircraft flight routes 6-10	conflicts of interest 1-15
agricultural aircraft 6-17	expertise in aviation 1-5, A-3

officers 1-15	comparative effectiveness of 1-10, 1-13
proxies Smry-4, 1-15, A-3	geographic jurisdiction 1-3
terms of office Smry-4, 1-14, A-6	intercounty 1-6
Airport land use commission reviews	legislative history A-31
action choices 2-14, 4-13	limitations on 1-2
actions required to be reviewed Smry-13, 4-6,	meetings 1-14,
5-10	powers and duties Smry-4, 1-2, A-7
alternative process Smry-4, 1-8, 1-10, 1-13, 2-2,	purpose 1-1,
5-13, A-3	relationship to
by agreement with local agencies Smry-12,	county governments 1-11
Smry-13, 4-9	regional planning agencies 1-12
fees for 1-16, 2-3, 4-13	rules and regulations 1-12, A-7
information to be submitted 4-11, A-19	Airport master plans
making exceptions to policies Smry-11	ALUC review of Smry-14, 4-4, 4-7, 4-14, A-11
procedures for 2-11, 2-14	as basis for compatibility plans Smry-5, 2-2,
requirements for 4-1, A-10	2-5, 2-7
response time requirements 4-12, A-10	as source of funding for compatibility plan
reviews on advisory basis 4-9	preparation 2-3
subsequent reviews of related actions 4-10	as source for noise contours 7-20
substance of 4-15	documentation in compatibility plans 2-13
timing of Smry-11, 4-12	Airport proprietors
types of actions reviewed	community relations role 5-23
airport development and expansion plans	immunity following local agency overruling
Smry-11, Smry-14, 4-4, 4-8, 4-14, 4-19, A-17	of ALUC 5-19
airport master plans 4-4, 4-7, 4-14, 4-19	responsibilities of
building regulations 4-2, 4-7, 4-17, A-10	land use compatibility Smry-14
defining in compatibility plan 2-10	submitting plans for ALUC review Smry-14,
environmental documents 4-10	5-11
general plans Smry-7, 2-14, 4-2, 4-6, 4-16,	review of land use actions 5-13
5-2, A-10	role in airport land use compatibility planning 5-21
individual development projects Smry-12,	Airport traffic pattern
4-8, 4-10, 4-18	see: aircraft flight routes
ministerial actions 4-10	Airspace protection
new airports and heliports 4-4	as compatibility concern 2-10
nonaviation development on airport	as determinant of compatibility zone boundaries
property 4-10	Smry-10, 3-15
specific plans 4-2, 4-6, 4-16, A-10	compatibility criteria Smry-10
zoning ordinances 4-2, 4-7, 4-17, A-10	basis for setting 3-8
Airport land use commission staff A-6	compatibility strategies 3-8
responsibilities of 1-16	federal standards 9-5, B-1
training A-7	including in combining districts 5-9
Airport land use commissions	mapping 3-14
designated bodies 1-6, 1-13, 1-14, A-3	measurement of 3-8
dissolution of 1-10	obstructions 5-9, 5-12, 9-6, 9-56, A-15
establishment, requirements for 1-4, A-2	also see: Federal Aviation Regulations, Part 77
specific county exceptions 1-9, A-4, A-5	Annoyance
declaration of exemption 1-9	as reaction to overflights 3-3
format options Smry-3, 1-5, 1-7	as addressed by buyer awareness measures 3-25

factors affecting 7-10, 7-12, 7-17, 7-30, 7-34	noise Smry-6, 2-10
percent of people highly annoyed 7-12, 7-14	overflight Smry-9, 2-10
significance of background noise levels 7-16	safety Smry-10, 2-10
standard provisions 3-23, 5-22	structure of Smry-7
Building regulations	table format options 3-9
ALUC review of 4-2, 4-7, 4-17, A-10	procedural policies 2-14
submitting for review 5-10	Compatibility plans
Buyer awareness measures 3-25, 5-8	adoption as element of local plan 2-2, 2-3
affect on noise level acceptability 7-38	adoption process
as overflight compatibility strategy 3-4	amending Smry-3, 2-16
general plan policies regarding 5-6	environmental document requirements Smry-
California Airport Noise Regulations 7-6	6, 2-16
relationship to findings in overruling process 5-17	involvement of local agencies 2-11
role of avigation easements in 3-23	public notice and hearing requirements Smry-
California Building Code 7-7	6, 2-18
California Department of Transportation	airports to include in Smry-4, 2-4
see: Division of Aeronautics	contents of 2-4
California Environmental Quality Act	essential elements Smry-5, 2-13
ALUC review of environmental documents 4-10	optional elements 2-15
applicability to adoption of compatibility plans	geographic coverage 2-10
Smry-6, 2-16	implementation 1-4, 5-1
Handbook as technical resource for environmental	in counties without ALUCs Smry-14, 5-13
documents Smry-3, 5-13	preparation
also see: environmental documents	funding for 2-3
California State Aeronautics Act	guidance provided by <i>Handbook</i> Smry-3, A-8
see: Aeronautics Act; Public Utilities Code	information resources 2-2
Combining districts, airport	involvement of local jurisdictions Smry-6, 2-11
as means of achieving consistency with	requirements for 1-2, A-8
compatibility plans 5-4, 5-8	responsibility for 2-1
possible components 5-9	purpose of 2-1
Community Noise Equivalent Level (CNEL) 6-20	relationship to airport master plans Smry-5, 2-5
as basis for compatibility criteria 3-2	scope 2-4, 2-13
contours, depicting on compatibility maps 3-14	time frame addressed Smry-5, 2-8
relationship to Sound Exposure Level 7-31	Compatibility strategies 3-2, 5-4
also see: noise; noise contours	Compatibility zones
Compatibility concerns	basis for Smry-8, Smry-9, 3-14
types addressed by compatibility plans Smry-6,	mapping 2-13, 3-8
Smry-8, 1-3, 2-9, 2-14, 3-1	relationship to geographic features 3-15
Compatibility maps Smry-7, 2-13	safety 9-38, 9-40, G-1
base map alternatives 3-16	Comprehensive land use plans
format options 3-9	see: compatibility plans
zone boundaries 3-14, 3-15	Day-Night Average Sound Level (DNL) 6-20
Compatibility plan policies	Deed notices, recorded 3-25, D-1
compatibility criteria	Designated bodies
airspace protection Smry-10, 2-10	see: airport land use commissions
describing in compatibility plan 2-13	Division of Aeronautics
guidelines for Smry-6	approval of airport layout plans Smry-5, 2-7
limits on restrictiveness 1-3, 3-27	approval of alternative process 1-8, A-4

guidance available from	Federal Aviation Administration
for compatibility plan preparation Smry-3,	aeronautical studies Smry-10, 5-11, B-10
Smry-7, 9-8	air carrier aircraft accident data 8-8, 8-11
meaning of "be guided by Handbook"	grant assurances, role in compatibility planning
Smry-1,	5-12
information resource for compatibility plans 2-2	notifying regarding construction near airports
issuance of airport permits 5-12, A-17	9-5, B-2
noise regulations and policies 3-23, 7-6	noise policies 7-2
regulation of obstructions 5-9, 5-12, A-15	safety guidance 9-1, 9-4
review of	Federal Aviation Regulations
environmental documents 5-13	Part 367-2, 7-33
school sites 5-12, A-25, A-26, A-28	Part 77 Smry-10, 9-5,
state building sites 5-13, A-15	Part 77 surfaces 9-57, B-5
source of funds for compatibility plan	as basis for airspace protection Smry-1, 3-8,
preparation 2-3	9-56
Easements	as determinant of planning area boundaries
acquisition by airport proprietor Smry-14, 5-22,	2-10, 3-15
9-5	depicting on compatibility maps 3-14
affect on noise environment 3 -24, 7-22	reference to in airport combining zone 5-9
•	Part 91 7-3
approach protection easements 5-23	Part 150 7-3, 7-20
avigation easements	Part 161 7-4, 7-32
as noise compatibility strategy 3-3	
for airspace protection Smry-10	Federal Interagency Committee on Airport Noise
function as buyer awareness measure Smry-9,	(FICAN) 7-5, 7-9, 7-13, 7-10
3-25	Federal Interagency Committee on Noise (FICON)
function within California Airport Noise	3-2, 7-5, 7-13, 7-10, 7-40
Regulations 7-6	Findings
sample document D-1	concept of 5-15
standard provisions 3-23, 5-22	for local agency overruling of ALUC actions
dedication of Smry-8, Smry-11, 3-22, 3-30	Smry-13, 5-16, A-9, A-10,
overflight easements 3-5, 3-23	General aviation airports
Education Code A-26	compatibility planning for 3-33
§17215 5-12, 9-8	General plans
§81033 5-12, 9-8	180-day time period for revisions Smry-12, 4-6,
Environmental documents	5-2
ALUC review of 4-10, 4-15, 5-10	ALUC review of 2-14, 4-2, 4-6, 4-16, 5-2, A-10
applicability to adoption of compatibility plans	as source of noise contours 7-20
Smry-6, 2-16	consistency with compatibility plans Smry-7,
assessment of airport noise impacts 3-2, 7-17,	Smry-11, Smry-12, 4-9, 4-16, 5- 1, 5-3, A-18
7-20, 7-40	checklist 5-5
Division of Aeronautic review of 5-13	existing land uses in 3-20
for converted military bases 3-35	importance to compatibility planning 1-10
Handbook as technical resource for Smry-3,	land use map 5-5
5-13, A-30	noise element 5-5, 7-7
also see: California Environmental Quality Act	options for incorporating compatibility policies
Environmental Protection Agency 7-4, 7-8, 7-11,	
·	Smry-12, 4-17, 5-3
7-23, 7-26	

§ 65090, § 65091 2-19	definition of 3-17
§ 65302(f) 7-7	mapping 3-20
§ 65302(g) 5-18	expansion, conversion, redevelopment 3-21
§ 65302.3 Smry-12, 4-3, 4-6, 5-1, 5-2	infill 3-21, 5-6
§ 65943 to 65946 4-12	intensity limitations, nonresidential 3-6, 3-13,
§ 65353 2-19	4-18, 5-5, 5-9, 9-3, 9-51
§ 66030 to 66031 4-21	method of calculation C-1
Hazards to flight Smry-6, Smry-10, 2-10, 2-13, 3-7,	noise level criteria for 7-25, 7-29, 7-36
5-6, 9-4, 9-55	nonconforming uses 5-6
also see: airspace protection; wildlife hazards	open land 5-6, 5-9, 9-54
Height limits	reconstruction 3-22, 5-6
as land use compatibility criterion 3-13	risk-sensitive uses 3-6, 3-13, 5-5, 9-3
general plan policies regarding 5-6	safety compatibility criteria for 9-42, 9-44, 9-47
in individual development projects 4-18	Local land use jurisdictions
also see: Federal Aviation Regulations, Part 77	duties and responsibilities of 5-1
Helicopter Noise Model (HNM) 6-24	enforcing compatibility criteria 5-7
Helicopters	making plans consistent with compatibility
accident locations 8-25	plan Smry-11, 5-1
noise characteristics 6-8, 6-9	reviewing land use development actions 4-9,
operation in emergencies 8-4	5-7, 5-14
Heliports	submitting projects for ALUC review 5-7, 5-10
ALUC review of plans for 4-8	when ALUC review not required Smry-13
compatibility planning for 3-37	when no ALUC exists Smry-14, 5-14
including in compatibility plans 2-4	involvement in compatibility plan preparation
safety compatibility guidelines 9-50	and adoption Smry-6, 2-12, 3-16
Individual land use development projects	overruling ALUC decisions Smry-13, 5-15
ALUC review of Smry-12, 4-2, 4-8, 4-13, 4-18	Military airports
reviewing when no ALUC exists 5-14	compatibility planning for Smry-5, 2-4, 3-16,
submitting for review 5-10	3-36, 7-38
Integrated Noise Model (INM) Smry-8, 6-22	conversion to civilian airport 3-34
aircraft noise sources considered in 6-17, 6-19	noise contours for 6-24
database limitations 6-27, 7-33	safety compatibility criteria for 9-7, 9-40, 9-48
Intercounty airports 1-3, 1-6, A-5	National Transportation Safety Board
Inverse condemnation	selected aircraft accident data 8-1
significance to compatibility policies 1-3, 3-27	air carrier 8-13, 8-19
Judicial actions	general aviation 8-10, 8-12, 8-18, 8-26, 8-27,
in absence of compatibility plan 4-20	8-28, 8-29
mediation process 4-21, A-23	source of aircraft accident location data 8-5,
Land uses	8-15
clustering of development 9-52	Noise, airport
density limitations, residential 3-6, 3-13, 4-18,	acceptability of 7-21
5-5, 5-9, 9-3	aircraft
designations	differences from other transportation
in compatibility tables 3-11	sources 6-4
importance as compatibility strategy 5-4	footprints 6-6
existing Smry-7, 1-2	type differences, effect of 6-1
accounting for in compatibility plans 3-19	airport development effects on 7-38
as factor in safety zone delineation 9-37	as compatibility concern 1-3, 2-9

as determinant of compatibility zone boundaries	Open land
Smry-8	as component of combining district 5-9
characteristics of 6-1	as safety compatibility factor Smry-10, 3-6, 3-13,
communication of data 7-17	9-47
compatibility criteria Smry-8, 7-21	characteristics of 9-54
alternatives for new residential land uses 7-29	function as emergency aircraft landing sites 9-4
basis for setting 3-3	including in general plan 5-6
policy foundations 7-1	relationship to land use development
variables affecting selection of 7-23	clustering 9-52
compatibility policy issues 7-1	Overflight
compatibility strategies 3-3	altitude as compatibility factor 7-34
insulation 3-25, 6-3, 5-6, 7-35, 7-37, 7-39	as compatibility concern 2-10
interior levels 7-7, 7-34	compatibility criteria Smry-9
measurement of 3-2, 6-19	basis for setting 3-5
methods of limiting impacts 7-21	compatibility strategies 3-4
metrics 6-19	mapping 3-14
cumulative 6-20, 7-28	measurement of Smry-4
single-event 6-19, 7-30, 7-32	trespass from 3-24
monitoring systems 3-2, 6-25, 6-28, 7-33	Overlay zones
typical levels in various communities 7-27	see: combining districts
also see: aircraft noise characteristics; noise	Overruling of ALUC decisions 1-4, 4-9, 5-3, A-9, A-11
contours	implications of 5-19, A-11
Noise contours	steps required for Smry-13, 5-15
activity forecasts as input to 7-18	Planning area boundaries
ALUC review of 4-19	consultation with local agencies in setting 2-12
as compatibility planning tool 3-2, 3-14, 7-18	default boundaries 3-16, A-9
as component of airport combining zone 5-9	defining in compatibility plans 2-10, 2-19
calculation of 6-22	relationship of compatibility concerns to 3-15
input data 6-24, 6-26	President's Airport Commission (Doolittle
limitations to 6-27	Commission) 8-8, 9-2, 9-34
example of 6-23	Public Resources Code
limitations of 6-27	§ 21096 Smry-3, 5-13 A-30
mapping of 3-14	Public Utilities Code A-2, A-14, A-15
projections of future 6-29	§ 21402 9-7
sources of 7-20	§ 21403 (a) 9-7
also see: community noise equivalent level;	§ 21655 5-13
noise, airport	§ 216565-9, 5-12
Noise effects on people 7-8	§ 216593-8, 5-9, 5-12
annoyance 7-10, 7-12, 7-14	§ 21661.5 Smry-14, 3-35, 4-4, 4-8, 5-11
complaints 7-16	§ 21662 5-12
learning impairment 7-9	§ 21663 5-12
sleep disturbance 7-10, 7-13	§ 21664.5 Smry-14, 4-4, 4-8, 5-11
speech disruption 7-9, 7-11	§ 21669 1-1, 7-6
summary 7-15	§ 21670 5-17
Noise Level Reduction (NLR) 7-37	§ 21670(a) 1-1, 1-3, 5-17
NOISEMAP noise model 6-24	§ 21670(a)(1) 3-23
Normalization (of noise measurements) 3-3, 7-23,	§ 21670(a)(2) 1-2
7-26	§ 21670(a)(2) 1-2 § 21670(b) Smry-3, 1-4, 1-5, 1-9
/ =0	J =10/0(D) OHH y J, 1 1, 1 J, 1 /

§ 21670(d) Smry-4, 1-15	§ 21679(c) 4-20
§ 21670(e) 1-5	§ 21679(d) 4-21
§ 21670.1 Smry-3, Smry-4	§ 21679(f) 4-21
§ 21670.1(c) 1-8, 2-2, 5-4	Real estate disclosure statements
§ 21670.1(d) 1-9	as component of airport combining zone 5-9
§21670.1(e) 1-9	function as buyer awareness measure 3-5, 3-26,
§ 21670.2 1-9	5-23
§ 21670.4 1-6	Referral areas
§ 21671 1-5	see: planning area boundaries
§ 21671.5 1-2	Regional planning agencies
§ 21671.5(a) 1-14	as designated bodies 1-12
§ 21671.5(b) 1-12	review of airport plans and land use actions 5-13
§ 21671.5(c) 1-12	Risk
§ 21671.5(d) 1-12	as factor in safety compatibility 3-6
§ 21671.5(e) 1-14	associated with aircraft accidents 9-18
§ 21671.5(f) 1-16, 2-3	frequency of occurrence 9-19
§ 21672 1-15	perceptions 9-20
§ 21674(a) 1-2, 1-4	potential consequences 9-19
§ 21674(b) 1-4	responding to 9-21
§ 21674(c) Smry-4, 1-1, 5-11	spatial distribution 9-20
§ 21674(d) Smry-4, 1-1	concepts 9-8
§ 21674(e) 1-3, 2-5	comparisons 9-13
§ 21674(f) 1-12	judging acceptability 9-14, 9-15
§ 21674.7 Smry-1	measurement 9-9
§ 21675 2-1	perception 9-11
§ 21675(a) Smry-3, Smry-4, Smry-5, 1-1, 2-4,	responding to 9-13, 9-17
2-5, 2-7, 2-16, 3-28	reduction through building design 9-53
§ 21675(b) Smry-4, 2-4, 9-48	Runway protection zones
§ 21675(c) Smry-6, 2-12, 3-16	as safety zone 3-14, 9-37, G-2
§ 21675.1(b) 3-16, 4-6, 4-8	compatibility criteria for 3-9, 3-20, 9-5, 9-44
§ 21675.1(c) 4-3, 4-13	Safety
§ 21675.1(d) 4-3	as compatibility concern 9-2
§ 21675.1(f) 4-12	as determinant of compatibility zone boundaries
§ 21675.1(g) 4-10	Smry-9
§ 21675.2(a) 4-12, 4-13	compatibility criteria Smry-9, 9-1, 9-42
§ 21675.2(c) 4-12	basic qualities for 9-44
§ 21675.2(d) Smry-6, 2-18	basis for setting 3-7
§ 21676(a) 4-14, 5-1	guidelines 9-47
§ 21676(b) 4-3, 4-6, 4-7, 4-12	compatibility strategies 3-6
§ 21676(c) Smry-11, Smry-14, 4-4, 4-7	mapping 3-14
§ 21676(d) 4-12, 4-13	measurement of 3-6
§ 21676.5(a) Smry-12, 4-3, 4-8, 4-14, 5-2	of aircraft occupants 9-3, 9-53
§ 21676.5(b) Smry-12, 4-9	of people on the ground 9-2
§ 21678 5-18	policy foundations 9-4
§ 21679 4-14, 4-20	also see: hazards to flight
§ 21679(a) 4-2, 4-20	Safety zones 3-14
§ 21679(b) 4-3	application to individual airports 9-35

levels from common sources 6-5

configuration 9-34, 9-36	insulation
adjustment factors 9-41	capabilities of buildings 6-3, 7-37
air carrier runways 9-46	implications on land use compatibility
examples 9-38, 9-40	criteria 7-35, 7-36
comparison between 1993 and 2002	programs 7-39
examples G-1	measurement of 6-2
general aviation runways 9-42	Sound Exposure Level (SEL) 7-31
heliports 9-50	Special-use airports 2-4
military runways 9-48	Specific plans
general approach to defining 9-36	ALUC review of 4-2, 4-6, 4-10, 4-16, A-10
School sites	combined with compatibility plan 2-2, 3-11, 5-4
noise compatibility criteria 5-6, 7-6, 7-9, 7-34,	consistency with compatibility plans 3-20, 5-2,
7-36	5-4
review by Division of Aeronautics 5-12, 9-8,	submitting for review Smry-10, 5-10
A-25, A-26, A-28	Speech disruption 7-9
safety compatibility criteria Smry-10, 3-6, 3-13	Takings
Schultz curve 7-12, 7-14	see: inverse condemnation
Single-event noise levels	TERPS 2-13, 3-8, 3-14, 5-19, 9-56
as factor in land use compatibility planning	Vested rights 3-18
7-30, 7-32	Wildlife hazards 3-8, 9-6, 9-56
federal constraints on use for standards 7-32	Zoning ordinances
metrics 6-19, 7-30, 7-32	ALUC review of 4-2, 4-7, 4-17, A-10
Sound	submitting for review 5-10
attenuation in the outdoor environment 6-3	